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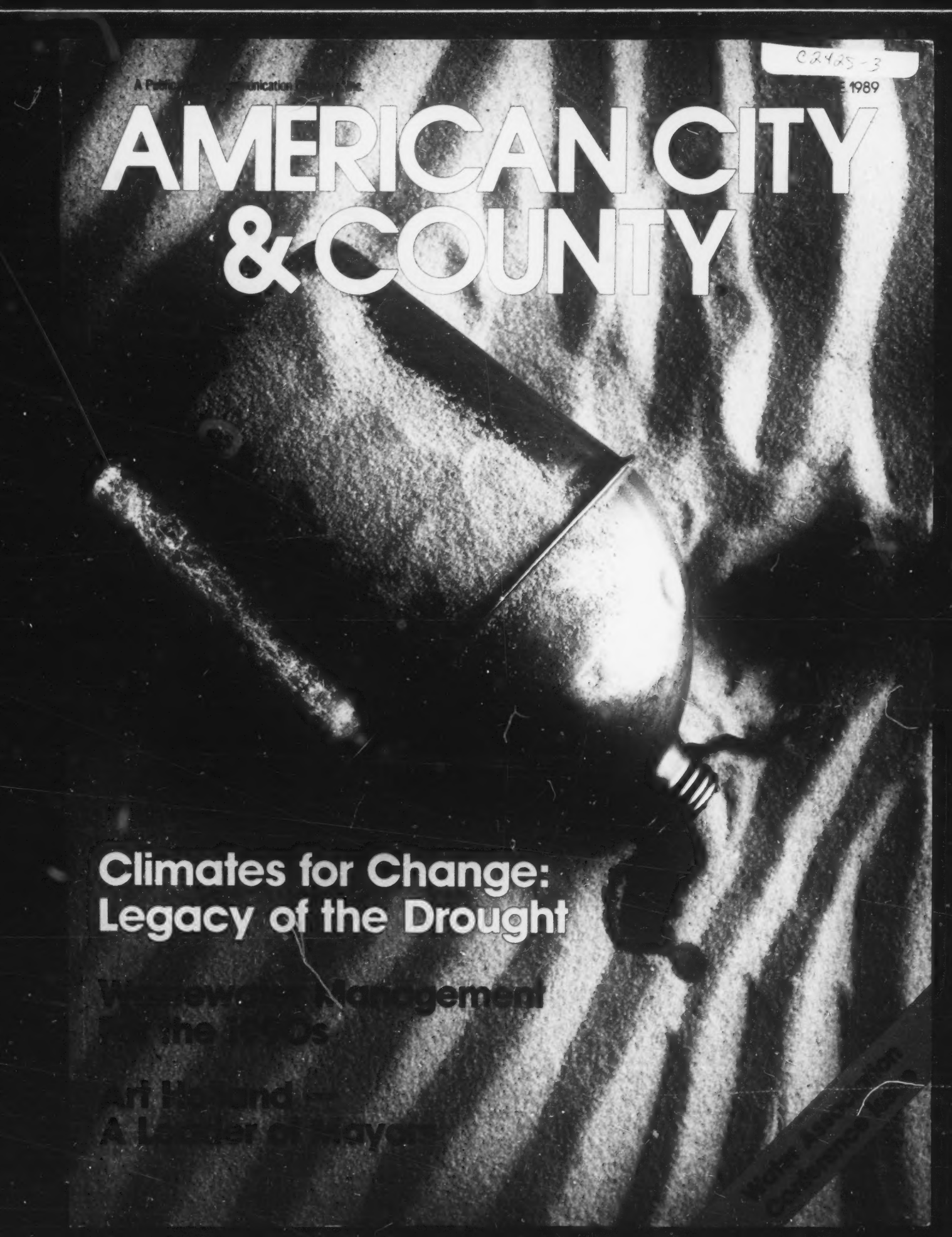

Climates for Change: Legacy of the Drought

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AMERICAN CITY & COUNTY®

June 1989 Vol. 104, No. 6

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Strategies for the Future

Citizens in New Bedford, Mass., face a $600 million bill for mandated environmental work. Their entire annual city budget is only $120 million. Mayor John Bullard says being ordered to come up with $600 million is akin to being ordered to fly.

While New Bedford might represent a worst-case scenario, cities and counties all over the nation to some degree are caught in the same vice — being ordered to do more to clean up the environment with less financial assistance. The theme of this month's wastewater section — "Doing More With Less" — could be the local government slogan for all municipal operations for the last two decades of the 20th century.

And while the authors specifically discuss the wastewater challenges facing New Bedford and other cities, their "Strategies for the '90s," as well as their theme, could apply to a wide range of municipal problems, from water supply and infrastructure deterioration to the solid waste crisis.

Strategies include: get political, be proactive, negotiate, plan long-range, turn to new technologies, reuse resources and go back to the basics.

Getting political means working with legislators and regulators, lobbying and working with agencies that have common goals, something cities and counties increasingly have been doing in the 1980s. But it goes beyond that. Probably more than anything, it means educating the public — developing "a local constituency, so as the rates rise, the public perceives the benefit," as management consultant John Gall says in the wastewater story.

The U.S. Environmental Protection Agency (EPA), late last year predicted big rate increases facing the American public in the near future. Residents in the smallest communities and the largest cities especially will be hard hit by hikes in water and sewage treatment. EPA estimates that 55 percent of all small communities will have to raise their user charges by 50 percent or more to meet new federal regulatory requirements. The national average per household by 1996 will be a $100 annual increase, $170 in small towns and $160 in large cities.

EPA's strategies for the 1990s include encouraging more public-private partnerships, information sharing between communities, self-help programs, and educating a public that always has taken it for granted that turning on the tap means clean water and pulling the plug is its only responsibility in disposing of used water.

"What is most exciting about these creative approaches is that local citizens — real people — are taking a more active role ensuring their community's environmental security," Assistant EPA Administrator Charles Grizzle told the National League of Cities. "A sense of ownership and commitment then prevails. And hopefully that commitment will be renewed each time we take out the trash or turn on the tapwater."

Communities that have launched extensive community outreach programs have seen remarkable benefits. People want to get involved, to feel that something they do can make a difference. In our cover story this month on water supply problems and drought, examples of successful water conservation programs abound. Jay Lehr, executive director of the National Well Water Association, says last year's drought wasn't all bad. It made people realize that reduced water supplies are a fact of life and gave hope that widespread public interest in conservation won't "dissolve with the next burst of heavy rainfall."

In addition to saving water, he says, public education has a psychological benefit. "With the right mindset, people are more likely to vote for a bond issue, for example, that raises capital for a new leak detection or metering program. Public education convinces consumers that they are an important part of the solution."

Some of the most successful public education/public involvement programs have been carried out with very little monetary investment. Phoenix's water conservation plan, which resulted in a 6 percent per capita reduction in water use, relied heavily on local media coverage and advertising space donations. In Pasadena, Calif., an 8 percent reduction was achieved, and Marin County, Calif., took drastic measures and reduced use by 18 percent.

Cities and counties will not be able to solve all their problems by uniting their citizens behind their efforts, as Mayor Bullard probably would attest, but who knows what mountains might be moved? □

—Janette Mitchell

AMERICAN CITY & COUNTY

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BPA

Aluminum Cans Recycled At Record-Setting Pace

Used aluminum beverage cans are being recycled in record-setting numbers, according to a survey of the Institute of Scrap Recycling Industries (ISRI).

According to the survey, the used aluminum beverage can recycling rate hit 54.6 percent in 1988, reclaiming 42.5 billion cans last year, compared to 50.5 percent and 36.5 billion cans in 1987.

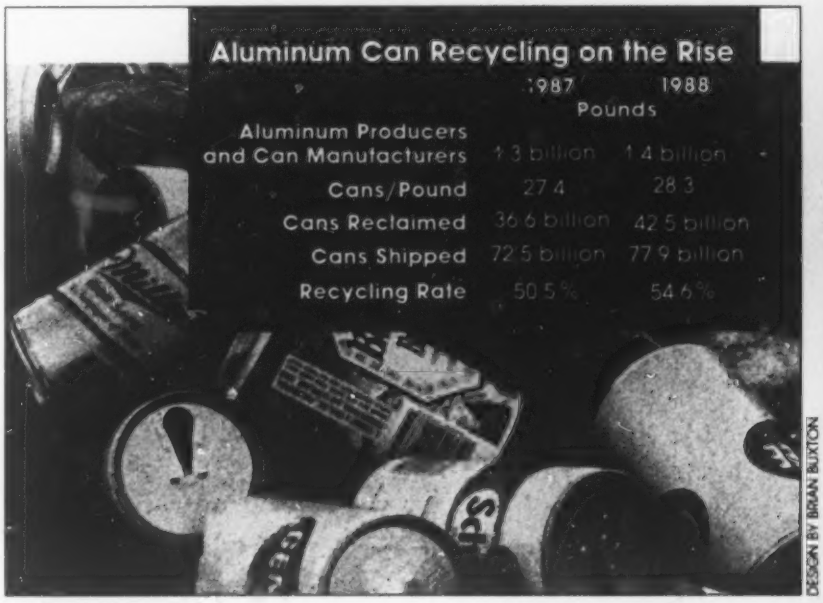
ISRI conducted the annual survey in cooperation with the Aluminum Association and the Can Manufacturers Institute. The industry groups surveyed various market segments, including sheet mills, secondary smelters, scrap processors and remelters, miscellaneous users of scrap aluminum and scrap metal exporters.

The survey also revealed an increase of about 30 percent in exported used cans, plus used beverage cans as a remelted product, up from 30,254 tons in 1987 to 39,300 in 1988.

In the United States, the largest consumers of used beverage cans are the aluminum sheet rollers, including integrated aluminum producers and independent sheet mills. ISRI estimates their combined intake exceeds 90 percent of the total 1.5 billion pounds melted and consumed in 1988. The survey noted that secondary aluminum smelters are not significant can scrap purchasers, primarily because of metalurgical aspects involved in producing die casting alloys.

In 1988, 28.25 aluminum cans were needed to make a pound, compared to 27.4 cans per pound in 1987. In an attempt to reduce manufacturing costs and conserve resources, aluminum can producers have been "lightweighting" cans for several years.

For example, 23 cans equaled a pound in 1981, 25.9 in 1984, and 26.6 in 1985. The Aluminum Association supplied can weight figures.



Georgia Establishes Recycling Initiative

The Georgia Department of Natural Resources' Environmental Protection Division (EPD) has launched Project PETRO, a major initiative which will give residents the opportunity to recycle waste oil that has been collected after they have changed the oil in their cars, trucks and lawnmowers.

Millions of gallons of oil are changed annually in the state. Some people dispose of the oil by pouring it on the ground or into storm sewers, allowing it to seep into streams and resulting in possible contamination of drinking water supplies. Small quantity generators, such as small industry automobile fleets and service stations, also contribute to the problem.

Project PETRO, which stands for Protect the Environment Through Recycling Oil, is aimed at making Georgians aware of the advantages of collecting used oil for re-refining and reuse.

"Not only will this program conserve oil, which is a valuable, non-renewable resource, but it will also set an example showing Georgia is minimizing a major waste," says John Taylor, chief of EPD's Land Protection Branch. "We encourage citizens and businesses to participate in the recycling program and assist us in our efforts to protect Georgia's natural environment."

The EPD plan will depend on public support in taking used oil to collection points. Waste oil handlers will take the oil to a processing plant where it will be converted into marketable products such as fuel for industrial furnaces.

Project PETRO was established through a $116,500 grant from the state Office of Energy Resources.

Hudson Falls, N.Y.: Construction is scheduled to begin immediately on a $60 million, 400 ton-per-day waste-to-energy plant, to be designed and built by Foster Wheeler Corp., Clinton, N.J. Commercial operation of the plant is scheduled for summer 1991.

Broome County, N.Y.: Foster Wheeler Broome County Inc., has signed a contract with the Broome County Resource Recovery Agency to build, own and operate a $69.2 million waste-to-energy facility in Kirkwood, N.Y. The facility will process a nominal 500 tons of municipal refuse per day to generate 18 megawatts of electricity for utility distribution.

Washington, D.C.: The Institute of Resource Recovery, a part of the Washington-based National Solid Waste Management Association, has elected its 1989 officers. They are David Sokol, president and chief executive officer of Ogden Martin Systems, chairman; and Fred Pollier, marketing manager of the Resource Energy Systems Division of Westinghouse, vice chairman.

Kearny, N.J.: Norton Chemical Process Products, Akron, Ohio, has announced the licensing of its Selexol Solvent gas purification process for the GSF Energy-operated municipal landfill in Kearny. The plant will produce a medium btu natural gas to be utilized by local industrial customers.

West Chester, Pa.: The U.S. Environmental Protection Agency has granted Roy F. Weston Inc., West Chester, Pa., a national permit for its transportable incineration system. The permit allows the firm to incinerate PCB-contaminated soils, liquids and sludges in any state without further permit approvals.

Lorton, Va.: SCS Field Services has been awarded a contract to install a landfill gas collection system to protect the resource recovery facility under construction adjacent to the Interstate-95 landfill in Lorton. The plant is being built by Ogden Martin Systems. □

Population and Urban Stress Related

Cedar Rapids, Iowa, ranks best and Gary, Ind., ranks as worst in a new Urban Stress Test conducted by Zero Population Growth, a Washington, D.C.-based non-profit organization studying the effects of overpopulation.

The year-long survey rated 192 U.S. cities on a broad range of population-linked social, economic and environmental stresses that affect quality of life. All U.S. cities with populations more than 100,000 were surveyed.

Each city was rated on a scale from 1 to 5 (1 = Best, 2 = Good, 3 = Warning, 4 = Danger, 5 = Red Zone) on 11 related criteria, including population change, crowding, education, violent crime, community economics, individual economics, births, air quality, hazardous wastes, water and sewage. Ratings were based on statistical data collected from private and governmental organizations. The scores each city received in the 11 categories were averaged to develop an overall score.

Cedar Rapids came in first with a 1.6 overall rating. Other top-ranking cities and their scores included Madison, Wis. (1.7); Ann Arbor, Mich., and Lincoln, Neb. (1.8); Fargo, N.D., and Livonia, Mich. (1.9); Concord, Calif. (2.0); and Alexandria, Va., Eugene, Ore., Roanoke, Va., and Worcester, Mass. (2.1).

Gary scored 4.2 overall. Other cities that fared poorly included Baltimore, Chicago, Houston, Jersey City, N.J., and Pomona, Calif. — each with an overall rating of 4.1. Ten of the 20 cities with the lowest overall marks were in Texas, California and New Jersey. The average population of the 20 lowest-ranked cities was 10 times larger than that of the 20 highest-rated cities.

"Overpopulation is not just a Third World problem," says Susan Weber, executive director of the organization. "It affects typical American communities in ever more conspicuous and destructive ways. Accelerating crime rates, diminishing air and water quality, shrinking open space, traffic-choked highways and skyrocketing housing prices are just some of the negative consequences."

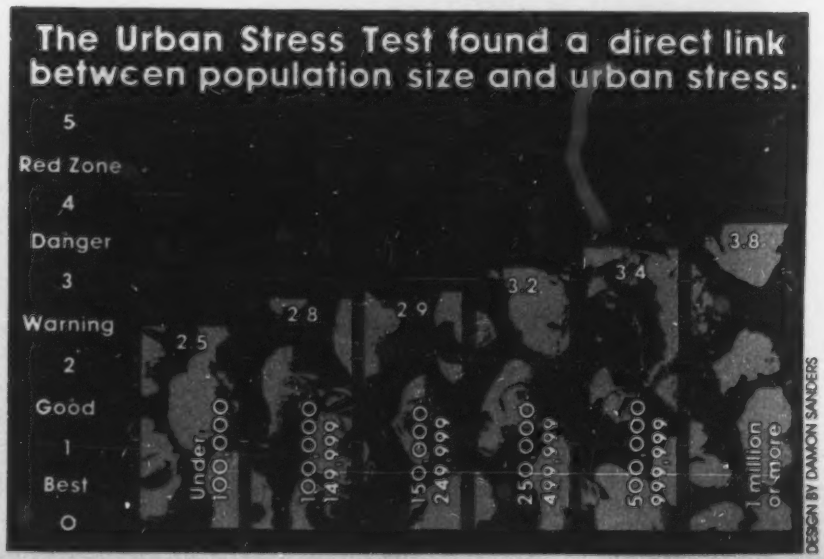
The majority of the 22 top-rated urban areas were in the Midwest, while almost one-third of the 20 lowest-rated cities were in the South. Columbus, Ohio, received the best score of all cities with populations more than 500,000, while Baltimore and Chicago tied for the lowest score in this category. Virginia Beach, Va., scored highest among cities with between 250,000 and 500,000 people; El Paso, Texas, scored lowest in this category.

Colorado was the only state to have more than one city that rated tops for education, with two. Eight of the 13 cities rating best for air quality were in Virginia; seven of the worst were in California and five in Arizona.

Phoenix was the only city to receive "Red Zone" ratings on all four environmental indicators — air quality, hazardous wastes, water and sewage. Three cities tied for the best overall environmental index — Abilene, Texas, Roanoke and Winston-Salem, N.C.

Thirteen of the cities scoring best for community economics were in California, followed by North Carolina with five. Texas headed the worst list with eight cities.

SURVEY SPOTLIGHT



WasteExpo Focuses On Disposal Woes

Rapidly dwindling landfill capacity and public attitudes about trash — including the renewed recycling furor — were topics that dominated discussions at the National Solid Wastes Management Association (NSWMA) WasteExpo '89 in Chicago.

"Managing the Waste Stream" was the theme of the annual meeting and show, which attracted 375 exhibitors last month and included technical sessions on a wide range of waste management topics.

NSWMA released two studies during the expo, one revealing that landfill capacity in the United States is likely to fall below needs by 1998 and another showing that most Americans place "taking care of the trash" high on their list of local priorities.

"These two reports highlight our imminent shortfall of waste disposal capacity while underscoring public reluctance to address the problem," said Robert Wasserstrom, NSWMA public affairs director, who released the studies.

A report titled "Landfill Capacity in the Year 2000" said many communities will be forced to ship their wastes to distant sites at high costs because half of the nation's landfills will be closed by 1995. NSWMA estimates that 75 percent of the 160 million tons of trash Americans throw away every year is deposited in landfills, and that construction rates for new landfills add only 4 million tons of new capacity a year, far short of the amount needed to keep pace with the closures.

In the second report, "Public Attitudes Toward Garbage Disposal," Americans surveyed ranked assuring adequate disposal third on a list of major community problems, behind improving public education and providing affordable housing. It was ranked second to education when NSWMA took the same poll last summer.

The new poll showed renewed support for stricter environmental regulation, especially air pollution and groundwater controls, a drop in public support for building new landfills and

Both the **Consumer Price Index** and the **Producer Price Index** increased 0.6 percent over last month's readings. The **Municipal Cost Index** continued its steady rise, increasing to 117.9. Only the **Construction Cost Index** remained steady from last month.

Construction machinery rose 0.3 percent, to 115.7; heavy motor trucks also registered 115.7. Concrete products registered no change, while foundry products rose 0.4 percent. Portland cement dropped 0.1 percent, to 101.7.

—Compiled by Tim Darnell

MOST RECENT MARKETBASKET

	Current Index	Percent Change From: Most Recent Month	Last Year
Air Conditioners	117.2	0.6	4.5
Apparel	113.0	−0.5	2.9
Asphalt Roofing	93.9	−0.5	0.5
Ball Bearings	125.5	2.4	13.8
Coal	93.7	−0.1	−2.2
Communication Devices	103.8	0	1.6
Concrete Products	110.6	0	0.7
Construction Machinery	115.7	0.3	4.2
Diesel Fuel	57.7	6.5	14.7
Electric Components	119.5	0.3	2.8
Electric Power	110.9	0.2	3.0
Floor Coverings	115.9	0.5	2.7
Fuel Oil No. 2	57.3	9.1	16.2
Foundry Products	113.6	0.4	4.9
Furniture	127.3	0.3	3.7
Gasoline	59.1	3.9	10.3
Generator Sets	129.0	1.2	7.1
Glass	110.0	−0.4	0.9
Glass Containers	113.9	1.2	1.5
Gypsum Products	110.2	−0.6	−2.7
Hardware	119.1	0.3	5.1
Heating Equipment	123.6	0.5	4.4
Industrial Chemicals	116.9	−0.6	14.5
I.C. Engines	112.8	0.1	1.8
Iron	82.8	0	0.1
LP Gas	51.9	−1.0	−4.1
Lumber	127.5	0.2	−4.1
Metal Fabrications	119.2	0.5	6.7
Mixed Fertilizers	109.1	0.2	4.5
Motor Vehicle Parts	108.5	0.1	2.0
Natural Gas	80.1	−5.4	2.8
Office Machines	109.4	0.8	2.9
Paint	129.9	−0.3	16.2
Paper	130.7	0.4	9.3
Passenger Cars	115.8	−0.2	4.1
Petroleum	53.6	6.8	13.6
Plastics	140.7	−0.4	13.1
Plumbing Fixtures	135.8	0.1	6.4
Plywood	111.5	1.8	7.8
Portland Cement	101.7	−0.1	−1.1
Pumps	113.6	0.4	6.0
Residual Fuel	43.5	−0.5	3.8
Rubber	109.2	−1.2	1.9
Sand, Gravel	122.0	0.1	1.6
Sanitary Papers	122.2	0.4	8.2
Soaps, Detergents	119.7	−0.1	7.2
Sporting Goods	109.0	0.8	3.4
Steel Mill Products	114.8	0.3	6.2
Switchgear	118.3	0.3	5.2
Synthetic Fibers	101.3	0.6	6.5
Tires, Tubes	97.2	0.4	4.2
Tools, Dies	112.7	0	2.4
Transformers	115.0	0.4	6.2
Transmissions	120.3	0.3	5.0
Trucks	115.7	−1.2	4.2
Valves	119.4	0.7	7.4
Wire, Cable	147.7	1.2	19.3
Wiring Devices	128.2	−0.1	4.7

At-A-Glance Changes

MUNICIPAL COST INDEX

Last Year 113.4 — Previous Month 117.5 — This Month 117.9

Percent Change By: Month 0.3 Year 4.0

CONSTRUCTION COST INDEX

Last Year 116.9 — Previous Month 118.9 — This Month 118.9

Percent Change By: Month 0 Year 1.7

CONSUMER PRICE INDEX (BLS)

Last Year 116.5 — Previous Month 121.6 — This Month 122.3

Percent Change By: Month 0.6 Year 5.0

PRODUCER PRICE INDEX (BLS)

Last Year 104.9 — Previous Month 110.8 — This Month 111.5

Percent Change By: Month 0.6 Year 6.3

These figures are calculated on a base year of 1982.

QUARTERLY MUNICIPAL TRENDS

	Current Level	Percent Change From: Last Qtr.	Last Year
Receipts	708.0	1.4	7.7
Federal Grants	111.5	1.2	7.7
Durable Purchases	30.0	0	7.9
Consumables	48.1	0.2	7.8
Services	444.6	0	27.9
Structures	66.4	0	8.1
Salaries, Wages	347.8	0	6.8
Surplus	56.2	0	−35.8
Employment	14.570M	0.2	2.0